Amendments to the Claims

This listing of claims replaces prior versions:

Claims 1-13 (Canceled)

Claim 14 (Currently Amended): [[The]] An image processing apparatus according to claim 11, for performing correction, the image processing apparatus comprising:

a plurality of templates;

a window array conversion unit that converts a data array of output data from an M x N window extracted from input data to a plurality of array conversion data patterns;

a pattern collation unit that collates the array conversion data pattern converted by the window array conversion unit with at least one of the templates, each of the templates including reference patterns; and

a pattern collation control unit that switches between the array conversion data patterns to collate with the template,

wherein the pattern collation control unit selects at least one of the templates based on a combination of mark dots and space dots from among a current dot of interest and its neighboring dots in the output data from the window; and

wherein the combination includes:

(a) a first template group of a continuous pattern consisting of three dots entirely having mark, or space;

(b) a second template group of a discontinuous mark pattern consisting of the current dot of interest having mark, excluding the template group (a); and

(c) a third template group of a discontinuous space pattern consisting of the current dot of interest having space, excluding said template group (a).

Claim 15 (Currently Amended): The image processing apparatus according to claim 14,

wherein the pattern collation control unit starts collation with the first template group when the current dot of interest and its right and [[lest]] left neighboring dots entirely have mark, or space;

the pattern collation control unit starts collation with the second template group when the current dot of interest has mark, and at least either its right or left neighboring dot has space; and

the pattern collation control unit starts collation with the third template group when the current dot of interest has space, and at least either its right or left neighboring dot has mark.

Claims 16 – 20 (Canceled)

Claim 21 (Currently Amended): [[The]] An image processing method ~~according to claim 18,~~ for performing correction comprising:

converting a data array of output data from an M x N window extracted from input data to a plurality of array conversion data patterns;

collating the array conversion data pattern converted with at least one of a plurality of templates, each of the templates including reference patterns; and

switching between the array conversion data pattern to collate with the template,

wherein the template is selected based on a combination of mark dots and space dots from among a current dot of interest and its neighboring dots in the output data from the window; and

wherein the combination includes:

(a) a first template group of a continuous pattern consisting of three dots entirely having mark, or space;

(b) a second template group of a discontinuous mark pattern consisting of the current dot of interest having mark, excluding the template group (a); and

(c) a third template group of a discontinuous space pattern consisting of the current dot of interest having space, excluding said template group (a).

Claim 22 (Previously Presented): The image processing method according to claim 21, wherein a process of the collating starts collation with the first template group when the current dot of interest and its right and left neighboring dots entirely have mark, or space;

the process of collating starts collation with the second template group when the current dot of interest has mark, and at least either its right or left neighboring dot has space; and

the process of collating starts collation with the third template group when the current dot of interest has space, and at least either its right or left neighboring dot has mark.

Claims 23-25 (Canceled)

Claim 26 (Currently Amended): ~~The image processing method according to claim 23,~~ A storage medium readable by a computer, the storage medium storing a program of instructions executable by the computer to perform a function for image processing, the function comprising:

converting a data array of output data from an M x N window extracted from input data to a plurality of array conversion data patterns;

collating the array conversion data pattern with at least one of a plurality of templates, each of the templates including reference patterns; and

switching between the array conversion data patterns to collate with the template,

wherein the template is selected based on a combination of mark dots and space dots from among a current dot of interest and its neighboring dots in the output data from the window; and

wherein the combination includes:

(a) a first template group of a continuous pattern consisting of three dots, entirely having mark, or space;

(b) a second template group of a discontinuous mark pattern consisting of the current dot of interest having mark, excluding the template group (a); and

(c) a third template group of a discontinuous space pattern consisting of the current dot of interest having space, excluding said template group (a).

Claim 27 (Currently Amended): The ~~processing method~~ storage medium according to claim 26,

wherein a process of collating starts collation with the first template group when the current dot of interest and its right and left neighboring dots entirely have mark or space;

the process of collating starts collation with the second template group when the current dot of interest has mark, and at least either its right or left neighboring dot has space; and

the process of collating starts collation with the third template group when the current dot of interest has space, and at least either its right or left neighboring dot has mark.

Claims 28 and 29 (Canceled)

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Claim 30 (Previously Presented): The image processing apparatus for performing correction, the image processing apparatus comprising:

a plurality of templates;

a window array conversion unit that converts a data array of output data from an M x N window extracted from input data to a plurality of array conversion data patterns;

a pattern collation unit that collates the array conversion data pattern converted by the window array conversion unit with at least one of the templates, each of the templates including reference patterns; and

a pattern collation control unit that switches between the array conversion data patterns to collate with the template based on a time-division and selects at least one of the templates based on a combination of mark dots and space dots from among a current dot of interest and its neighboring dots in the output data from the window, wherein the combination includes

(a) a first template group of a continuous mark pattern consisting of three dots entirely having mark, or space;

(b) a second template group of a discontinuous mark pattern consisting of the current dot of interest having mark, excluding the template group (a); and

(c) third template group of a discontinuous space pattern consisting of the current dot of interest having space, excluding said template group (a), and the plurality of templates being classified by the template groups and a plurality of process of the pattern collation unit being performed in parallel based on the template groups.